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ABSTRACT

The Oklahoma Assistive Technology Center was developed as an interagency collaborative effort, with one of its services being the delivery of positioning and mobility services to young children with developmental disabilities. The Center operates as an outpatient clinic and coordinates outreach services through two satellite centers in rural regions of Oklahoma. A component of the Center's early intervention program is the SoonerStart Statewide Training and Regional Support Program, which provides transdisciplinary training for team members including parents, nurses, child development specialists, psychologists, speech/language pathologists, occupational therapists, and physical therapists. The training program allows both individuals and teams to establish goals and priorities for training and then to obtain the level of expertise desired through course offerings. The 2-day Seating and Positioning course covers basic principles, anatomy, biomechanics, kinesiology, identification of types of equipment, and fabrication of adaptive equipment. The 2-day Upper and Lower Extremity Splinting course teaches basic principles, anatomy, biomechanics, kinesiology, characteristics of thermoplastic materials, types of splints for selected individuals, and fabrication of upper and lower extremity splints. Both courses consist of didactic information as well as laboratory experiences, and both have as a prerequisite the completion of a Basic Handling and Body Mechanics course. (JDD)



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A Transdisciplinary Training Program for Providing Seating Positioning and Mobility Intervention to Children with Developmental Disabilities who are 0-3 years of Age

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Oklahoma Assistive Technology Center (OATC)

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A coordinated system to deliver positioning and mobility services to individuals with disabilities in Oklahoma has been developed. This system, the Oklahoma Assistive Technology Center (OATC) operates as a separate outpatient clinic within the Oklahoma Medical Center (OMC) and coordinates outreach services through two satellite centers in more rural regions of the state. network of local community resources to serve persons with developmental disabilities, in addition to expanding student and professional training and research programs has been developed. The OATC is part of an interagency collaborative effort between the University of Oklahoma Health Sciences Center (OUHSC), the State Department of Human Services, the State Department of Health, and the State Department of Education. established to provide appropriate and cost effective positioning/mobility and assistive technology services to consumers in Oklahoma.

The OATC is a model delivery system of specialized professional services and education developed to support the needs of Oklahomans with developmental or acquired disabilities. Services are provided in the areas of augmentative and alternative communication, positioning and mobility, and rehabilitation engineering and include client assessment and intervention; educational services for consumers, care-givers, and professionals; pre-professional education; and research. founded on philosophy of "people first" and "best practices" in habilitation and rehabilitation. The services provided by OATC are designed to assist individuals to participate as fully as possible in their naturally occurring environments, and in the most cost-efficient and timely manner possible. Services provided are age-appropriate, scientifically sound, are designed to result in functional outcomes meaningful to the person and the person's family or care-givers. OATC is committed to collaborating with habilitation and rehabilitation resources of

Oklahoma. It is organized to expand existing services of augmentative and alternative communication, positioning and mobility, and engineering support to Oklahomans with disabilities. This is being accomplished by providing assessment and intervention services through a multi-tiered system. The tertiary site for OATC is located at the OUHSC in Oklahoma City. Satellite sites currently exist at the Northern Oklahoma Resource Center in Enid and the Southern Oklahoma Resource Center in Pauls Valley. A network of individuals and sites offering services has expanded throughout urban and rural communities in Oklahoma.

OATC educational services are designed to assist institutions of higher education to present the most current theory, techniques and philosophy available as related to the services provided by OATC. The educational services are also structured to provide education for professionals, paraprofessionals, clients, families of clients and care-givers of people with disabilities.

OATC research activities are designed to evaluate outcomes of assistive technology for individual clients, to expand the knowledge of the assistive technology field and to provide more effective technology applications and services for people with disabilities. Faculty, staff, and students affiliated with OATC independently or in collaboration with others conduct and promote these research projects.

SoonerStart - Early Intervention

The Oklahoma policies and procedures for the SoonerStart early intervention program are written to reflect the spirit of P.L. 102-119 (formerly 99-457). The policies incorporate the principles of family-centered and transdisciplinary service delivery. Being family-centered is reflected by not only the behavior of individual team members, but also the openness and responsiveness of the service delivery system. There is a commitment to the involvement of families in all aspects of the SoonerStart process.

Being family-centered means that services are provided in the child's naturally occurring environment and focus on the concerns and needs of the family. Services provided by SoonerStart in center-based settings are the exception and based on the family's needs, not those of service providers. Service providers listen to parents' desires for their child, assist the parent in identifying strategies to meet these outcomes and supply the technical assistance required to implement the appropriate plan. The people-first philosophy pervades all communications and interactions. People are considered people first and are not identified by their disability. The person always comes first and unless pertinent to the topic, the disability need not be The privacy of families is respected and decisions of families are honored. The transdisciplinary approach to delivering services brings a holistic view of the child to the Individual Family Service Plan (IFSP) process. The arena



assessment is utilized, where a primary facilitator may gather or elicit information in areas beyond traditional disciplinary boundaries. Service delivery in the transdisciplinary approach is highlighted by the use of a primary service provider who assists the family to access and integrate appropriate disciplinary components.

Transdisciplinary Training

The SoonerStart Statewide Training and Regional Support (S.T.A.R.S.) Program is a training system designed to assist individuals concerned with meeting the needs of children with disabilities and their families while supporting a familycentered, transdisciplinary approach to providing services. intent of the program is to provide a coordinated training package which allows both individuals and teams to establish goals and priorities for training, then through course offerings obtain the information or level of expertise desired. The S.T.A.R.S. program intends to support best practice in early intervention by providing skill training across disciplines to maximize the potential of each child within the context of the individual family. S.T.A.R.S. consists of three components: Facilitator's Training, Team Training, and Technical Training. The Seating and Positioning course is a component of the Technical Training as a specialty course offered to all disciplines associated with providing early intervention services.

The course, Basic Handling and Body Mechanics, is a prerequisite to the Seating and Positioning as well as the Upper and Lower Extremity Splinting course. This course provides participants with basic information regarding positioning and handling infants and toddlers with neuromotor involvement. Basic terminology associated with simple anatomy, biomechanics, and kinesiology is presented in conjunction with understanding body mechanics relative to the issues of safety and facilitating movement of another individual. Biomechanics are discussed and experienced during lab sessions in relation to both typical and atypical development. Techniques for facilitating movement, hand placement, and understanding typical body mechanics are also introduced on the first day. The second day is comprised of movement lab sessions specifically addressing facilitation of other individual. Emphasis is placed on practicing handling techniques, appreciating individual differences across "typical populations", and increasing abilities to facilitate desired movement in populations that are not typical.

The two day course on Secting and Positioning provides participants with the opportunity to acquire skills for assessing, recommending and providing assistive seating and positioning for children with disabilities. Demonstration, case study presentation, and practice is utilized for achieving the following course objectives. Participants will:

1. understand basic principles of seating and positioning.



2. understand basic anatomy, biomechanics, and kinesiology related to seating and positioning.

3. identify appropriate types of equipment.

4. take part in the fabrication of adaptive equipment.

The two day course on Upper and Lower Extremity Splinting provides participants with the opportunity to acquire basic upper and lower extremity splinting skills through "hands-on" experience. Demonstration, case study presentation, and practice will be utilized for achieving the following course objectives. Participants will:

 understand basic principles of upper and lower extremity splinting.

 understand basic anatomy, biomechanics, and kinesiology related to upper and lower extremity splinting.

3. compare characteristics of available thermoplastic materials.

4. identify appropriate types of splints for selected individuals.

5. take part in the fabrication of upper and lower extremity splints.

Both courses consist of didactic information describing basic principles of seating/positioning and mobility or upper and lower extremity, as well as lab experiences to evaluate, recommend, or provide specific services to designated children. The participants fabricate positioning equipment out of low cost materials that can be used to adapt existing equipment such as strollers, high-chairs, booster seats, etc. that the child will take home. Children in the splinting course receive the appropriate extremity splints, under guidance of the instructor. The children involved in the lab experiences, their family and another familiar team member also participate in the workshop. The information and experience gained by participants is then taken back to their respective communities for the purpose of providing similar services and follow-up locally.

Summary

These courses focus on providing transdisciplinary training for team members (parents, nurses, child development specialists, psychologists, speech/language pathologists, occupational therapists and physical therapists) so that positioning/mobility or splinting issues will be addressed in basic intervention strategies for children under 3 years of age. During the past 6 months, over 40 children have received useful positioning devices to include extremity splints, modifications to strollers, booster seats, high chairs, and custom seat inserts for wheelchairs. Over 40 professionals have participate din this program. importantly, this program exemplifies the impact of training throughout the state in that all participants continue to address positioning and mobility issues with their respective clients after they leave the workshop. At least 5 therapists are now involved in consultation and training for other therapists at the local level.



Informal training with parents has been very effective in reducing the costs of some equipment. We have trained some parents/care-givers in how to "finish" certain aspects of seating/positioning equipment, and certainly have trained family members on the proper care and maintenance of their equipment.

From its inception, the S.T.A.R.S. and OATC service delivery system has been consumer driven. The demand for positioning and mobility services has accelerated at an often overwhelming rate. It is apparent that the needs for people living in all parts of the state <u>cannot</u> be met from one centrally located clinic with limited trained staff. It was apparent from the beginning that a de-centralized approach was needed, with "pockets" of expertise available around the state to address the service needs. Furthermore, the effectiveness of this consumer responsive approach relies heavily on training of local professionals, consumers, or "community experts" to help meet the positioning and mobility needs of the people with disabilities in Oklahoma.

